



A GYRO TECHNOLOGIES INC. COMPANY

PO Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

30-015-41437

May 7, 2014

Devon Energy Production Co., L. P.
333 West Sheridan Ave
Oklahoma City, Oklahoma 73102-5010

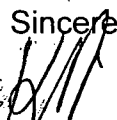
Attn: David Cook

Re: Cotton Draw Unit No. 202H

Please find enclosed a copy of the survey from 0.00' to 4272.00' ran on the above referenced well.

If I can be of any further service please do not hesitate to call me at 800-606-4976.

Sincerely,


Keith Havelka
Operations

NM OIL CONSERVATION
ARTESIA DISTRICT

JUL 29

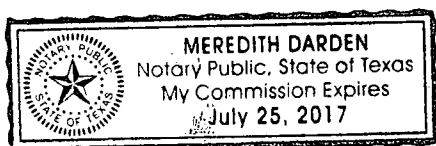
RECEIVED

STATE OF TEXAS §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 7th day of May, A.D., 2014, by Keith Havelka.



Meredith Darden
Notary Public, State of Texas





Company: DEVON ENERGY
Lease/Well: COTTON DRAW UNIT/202H

Rig Name: H & P RIG 223
State/County: NEW MEXICO /EDDY
Latitude: 32.15, Longitude: -103.75
GRID North is 0.31 Degrees East of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB:25 FEET

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut
Minimum Curvature Method
Report Date/Time: 5/7/2014 / 14:28

VES Survey International
West, Texas
(432) 563-5444

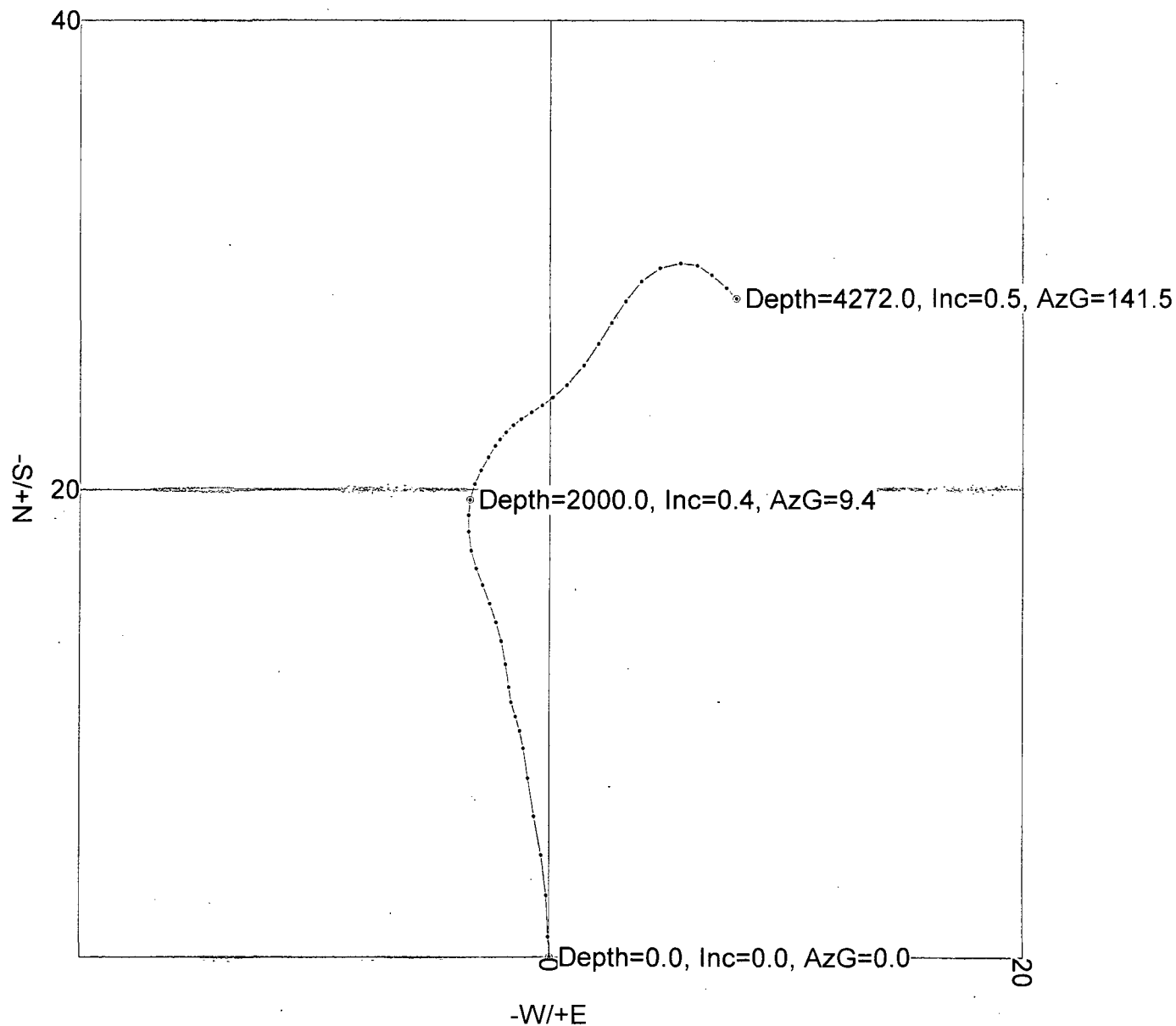
Surveyor: Jordan Shelleby
Cotton Draw Unit No. 202H / API 30-015-41437

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.99	357.75	100.00	0.86	-0.03	0.86	0.86	357.75	0.99
200.00	1.06	356.78	199.98	2.64	-0.12	2.64	2.64	357.41	0.07
300.00	0.95	348.75	299.96	4.37	-0.33	4.37	4.39	355.65	0.18
400.00	1.00	350.01	399.95	6.04	-0.64	6.04	6.08	353.91	0.05
500.00	0.89	352.31	499.94	7.67	-0.90	7.67	7.72	353.31	0.11
600.00	0.58	350.15	599.93	8.94	-1.09	8.94	9.00	353.04	0.30
700.00	0.30	344.97	699.92	9.69	-1.25	9.69	9.77	352.68	0.29
800.00	0.42	341.15	799.92	10.29	-1.43	10.29	10.39	352.08	0.13
900.00	0.31	348.40	899.92	10.91	-1.61	10.91	11.03	351.62	0.12
1000.00	0.44	352.21	999.92	11.56	-1.71	11.56	11.68	351.57	0.13
1100.00	0.69	351.51	1099.91	12.53	-1.85	12.53	12.67	351.58	0.25
1200.00	0.47	346.70	1199.91	13.53	-2.04	13.53	13.68	351.43	0.22
1300.00	0.48	341.74	1299.90	14.33	-2.26	14.33	14.50	351.02	0.04
1400.00	0.49	339.72	1399.90	15.13	-2.54	15.13	15.34	350.45	0.02
1500.00	0.48	338.95	1499.90	15.92	-2.84	15.92	16.17	349.87	0.01
1600.00	0.38	339.27	1599.89	16.62	-3.11	16.62	16.91	349.40	0.10
1700.00	0.52	346.75	1699.89	17.38	-3.33	17.38	17.69	349.14	0.15
1800.00	0.42	359.15	1799.89	18.19	-3.44	18.19	18.51	349.28	0.14

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.38	0.85	1899.89	18.89	-3.44	18.89	19.20	349.67	0.05
2000.00	0.38	9.39	1999.88	19.55	-3.39	19.55	19.84	350.18	0.06
2100.00	0.43	22.11	2099.88	20.23	-3.19	20.23	20.48	351.04	0.10
2200.00	0.30	27.43	2199.88	20.81	-2.92	20.81	21.02	352.00	0.13
2300.00	0.43	29.91	2299.88	21.37	-2.62	21.37	21.53	353.02	0.12
2400.00	0.22	33.48	2399.88	21.85	-2.33	21.85	21.98	353.93	0.21
2500.00	0.18	37.21	2499.87	22.14	-2.13	22.14	22.24	354.52	0.04
2600.00	0.28	43.14	2599.87	22.44	-1.86	22.44	22.52	355.26	0.11
2700.00	0.21	49.22	2699.87	22.74	-1.55	22.74	22.80	356.09	0.08
2800.00	0.28	53.74	2799.87	23.01	-1.22	23.01	23.04	356.97	0.07
2900.00	0.31	59.69	2899.87	23.29	-0.79	23.29	23.30	358.06	0.04
3000.00	0.31	55.18	2999.87	23.58	-0.34	23.58	23.58	359.19	0.03
3100.00	0.33	51.13	3099.87	23.92	0.11	23.92	23.92	0.27	0.03
3200.00	0.57	46.20	3199.86	24.44	0.70	24.44	24.45	1.64	0.24
3300.00	0.71	37.08	3299.86	25.28	1.43	25.28	25.32	3.24	0.17
3400.00	0.58	29.59	3399.85	26.21	2.05	26.21	26.29	4.48	0.16
3500.00	0.63	33.88	3499.85	27.10	2.61	27.10	27.23	5.49	0.07
3600.00	0.65	34.97	3599.84	28.02	3.23	28.02	28.20	6.59	0.02
3700.00	0.59	40.48	3699.83	28.87	3.89	28.87	29.13	7.68	0.08
3800.00	0.56	69.72	3799.83	29.43	4.68	29.43	29.80	9.04	0.29
3900.00	0.47	83.30	3899.83	29.65	5.54	29.65	30.16	10.59	0.15
4000.00	0.37	117.08	3999.82	29.55	6.24	29.55	30.20	11.93	0.26
4100.00	0.47	128.97	4099.82	29.14	6.85	29.14	29.93	13.22	0.13
4200.00	0.49	134.11	4199.82	28.59	7.47	28.59	29.55	14.65	0.05
4272.00	0.49	141.53	4271.81	28.13	7.88	28.13	29.21	15.66	0.09



VES Survey International
West, Texas
(432) 563-5444
Surveyor: Jordan Shelleby
Cotton Draw Unit No. 202H / API 30-015-41437



V.E.S. Survey Date: 04/17/2014



COTTON DRAW UNIT 202H

WEST UNRESTRICTED

Directional Survey

District DELAWARE BASIN	County EDDY	Field Name PADUCA	Project Group DELAWARE BASIN REG	State/Province NM			
Surface Legal Location SEC2 T25S R31E	API/UWI 3001541437	Latitude (°) 32° 9' 9.897" N	Longitude (°) 103° 45' 12.364" W	Ground Elev... 3,421.20	KB - GL (ft) 25.00	Orig KB Elev (ft) 3,446.20	Tubing Head Elevation (ft)

Wellbores

Wellbore Name OH	Parent Wellbore	SAP Well ID	Kick Off Depth (ftKB)	Vertical Section Direction (°)
Actual Deviation Survey GYRO, Proposed? No	Definitive? Yes	Proposed? No	Proposed Deviation Survey	

Deviation Survey

Date 4/17/2014		Description GYRO			
MD Tie In (ftKB)	TVD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	NSTie In (ft)	EW Tie In (ft)

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
4/17/2014	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	100.00	0.99	357.75	100.00	0.85	0.86	-0.03	0.99	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	200.00	1.06	356.78	199.98	2.60	2.65	-0.12	0.07	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	300.00	0.95	348.75	299.96	4.27	4.39	-0.33	0.18	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	400.00	1.00	350.01	399.95	5.87	6.06	-0.65	0.05	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	500.00	0.89	352.31	499.94	7.44	7.69	-0.90	0.12	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	600.00	0.58	350.15	599.93	8.66	8.96	-1.09	0.31	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	700.00	0.30	344.97	699.92	9.37	9.71	-1.25	0.28	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	800.00	0.42	341.15	799.92	9.94	10.31	-1.43	0.12	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	900.00	0.31	348.40	899.92	10.51	10.92	-1.61	0.12	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	1,000.00	0.44	352.21	999.92	11.13	11.56	-1.71	0.13	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	1,100.00	0.69	351.51	1,099.91	12.07	12.54	-1.85	0.25	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	1,200.00	0.47	346.70	1,199.91	13.02	13.54	-2.04	0.23	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	1,300.00	0.48	341.74	1,299.90	13.77	14.33	-2.26	0.04	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	1,400.00	0.49	339.72	1,399.90	14.51	15.13	-2.54	0.02	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	1,500.00	0.48	338.95	1,499.90	15.25	15.92	-2.84	0.01	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	1,600.00	0.38	339.27	1,599.89	15.90	16.62	-3.11	0.10	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	1,700.00	0.52	346.75	1,699.89	16.60	17.38	-3.33	0.15	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	1,800.00	0.42	359.15	1,799.89	17.38	18.18	-3.44	0.14	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	1,900.00	0.38	0.85	1,899.89	18.07	18.88	-3.44	0.04	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	2,000.00	0.38	9.39	1,999.88	18.73	19.54	-3.38	0.06	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	2,100.00	0.43	22.11	2,099.88	19.43	20.22	-3.19	0.10	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	2,200.00	0.30	27.43	2,199.88	20.04	20.80	-2.92	0.13	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	2,300.00	0.43	29.91	2,299.88	20.64	21.35	-2.62	0.13	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	2,400.00	0.22	33.48	2,399.88	21.17	21.84	-2.32	0.21	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	2,500.00	0.18	37.21	2,499.87	21.48	22.12	-2.12	0.04	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	2,600.00	0.28	43.14	2,599.87	21.82	22.43	-1.86	0.10	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	2,700.00	0.21	49.22	2,699.87	22.17	22.73	-1.55	0.07	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	2,800.00	0.28	53.74	2,799.87	22.48	22.99	-1.22	0.07	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	2,900.00	0.31	59.69	2,899.87	22.83	23.27	-0.79	0.04	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	3,000.00	0.31	55.18	2,999.87	23.19	23.56	-0.33	0.02	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	3,100.00	0.33	51.13	3,099.87	23.60	23.90	0.11	0.03	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	3,200.00	0.57	46.20	3,199.86	24.21	24.42	0.70	0.24	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	3,300.00	0.71	37.08	3,299.86	25.16	25.26	1.43	0.17	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	3,400.00	0.58	29.59	3,399.85	26.18	26.20	2.05	0.15	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	3,500.00	0.63	33.88	3,499.85	27.15	27.09	2.61	0.07	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	3,600.00	0.65	34.97	3,599.84	28.17	28.01	3.24	0.02	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	3,700.00	0.59	40.48	3,699.83	29.12	28.87	3.90	0.08	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	3,800.00	0.56	69.72	3,799.83	29.80	29.43	4.69	0.29	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	3,900.00	0.47	83.30	3,899.83	30.16	29.65	5.56	0.15	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	4,000.00	0.37	117.08	3,999.82	30.17	29.55	6.25	0.26	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	4,100.00	0.47	128.97	4,099.82	29.87	29.14	6.86	0.13	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	4,200.00	0.49	134.11	4,199.82	29.43	28.59	7.49	0.05	GYRO	VAUHG N ENERGY SERVICES
4/17/2014	4,272.00	0.49	141.53	4,271.81	29.04	28.13	7.90	0.09	GYRO	VAUHG N ENERGY SERVICES
4/21/2014	4,371.00	0.61	142.22	4,370.81	28.40	27.38	8.49	0.12	MWD	HALLIBURTON ENERGY SE...
4/21/2014	4,466.00	0.58	158.03	4,465.80	27.65	26.54	8.98	0.18	MWD	HALLIBURTON ENERGY SE...
4/21/2014	4,561.00	0.56	142.63	4,560.80	26.92	25.72	9.44	0.16	MWD	HALLIBURTON ENERGY SE...



COTTON DRAW UNIT 202H

WEST UNRESTRICTED

Directional Survey

District DELAWARE BASIN	County EDDY	Field Name PADUCA	Project Group DELAWARE BASIN REG			State/Province NM	
Surface Legal Location SEC2 T25S R31E	API/UWI 3001541437	Latitude (") 32° 9' 9.897" N	Longitude (") 103° 45' 12.364" W	Ground Elev... 3,421.20	KB - GL (ft) 25.00	Orig KB Elev (ft) 3,446.20	Tubing Head Elevation (ft)

Survey Data

Date	MD (ftKB)	Incl. (°)	Azm. (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
4/21/2014	4,655.00	0.79	166.64	4,654.79	26.01	24.73	9.87	0.38	MWD	HALLIBURTON ENERGY SE...
4/21/2014	4,750.00	0.63	157.61	4,749.79	24.96	23.61	10.22	0.21	MWD	HALLIBURTON ENERGY SE...
4/21/2014	4,844.00	0.70	190.78	4,843.78	23.94	22.57	10.31	0.41	MWD	HALLIBURTON ENERGY SE...
4/21/2014	4,939.00	0.59	199.31	4,938.77	22.88	21.53	10.03	0.15	MWD	HALLIBURTON ENERGY SE...
4/21/2014	5,034.00	0.46	248.76	5,033.77	22.21	20.94	9.52	0.48	MWD	HALLIBURTON ENERGY SE...
4/21/2014	5,128.00	0.25	218.81	5,127.77	21.84	20.64	9.04	0.29	MWD	HALLIBURTON ENERGY SE...
4/21/2014	5,220.00	0.16	239.23	5,219.77	21.58	20.42	8.80	0.12	MWD	HALLIBURTON ENERGY SE...
4/21/2014	5,314.00	0.50	230.26	5,313.77	21.18	20.09	8.37	0.36	MWD	HALLIBURTON ENERGY SE...
4/21/2014	5,409.00	0.40	256.19	5,408.76	20.74	19.74	7.73	0.24	MWD	HALLIBURTON ENERGY SE...
4/21/2014	5,503.00	0.35	234.67	5,502.76	20.41	19.50	7.18	0.16	MWD	HALLIBURTON ENERGY SE...
4/21/2014	5,598.00	0.33	273.47	5,597.76	20.18	19.35	6.67	0.24	MWD	HALLIBURTON ENERGY SE...
4/21/2014	5,692.00	0.06	262.23	5,691.76	20.13	19.36	6.35	0.29	MWD	HALLIBURTON ENERGY SE...
4/21/2014	5,787.00	0.17	185.80	5,786.76	19.98	19.21	6.29	0.18	MWD	HALLIBURTON ENERGY SE...
4/21/2014	5,881.00	0.44	189.45	5,880.76	19.48	18.72	6.21	0.29	MWD	HALLIBURTON ENERGY SE...
4/21/2014	5,976.00	1.20	113.86	5,975.75	18.86	17.95	7.06	1.23	MWD	HALLIBURTON ENERGY SE...
4/21/2014	6,070.00	2.43	92.98	6,069.70	18.84	17.45	9.95	1.46	MWD	HALLIBURTON ENERGY SE...
4/21/2014	6,164.00	3.06	113.91	6,163.60	18.43	16.33	14.24	1.25	MWD	HALLIBURTON ENERGY SE...
4/21/2014	6,259.00	4.40	109.23	6,258.39	17.17	14.10	20.00	1.45	MWD	HALLIBURTON ENERGY SE...
4/21/2014	6,353.00	5.75	102.81	6,352.02	16.28	11.87	27.99	1.56	MWD	HALLIBURTON ENERGY SE...
4/22/2014	6,448.00	7.06	103.95	6,446.43	15.53	9.41	38.30	1.39	MWD	HALLIBURTON ENERGY SE...
4/22/2014	6,542.00	8.80	102.62	6,539.52	14.66	6.44	50.92	1.86	MWD	HALLIBURTON ENERGY SE...
4/22/2014	6,637.00	10.41	100.16	6,633.19	14.13	3.34	66.47	1.75	MWD	HALLIBURTON ENERGY SE...
4/22/2014	6,732.00	11.67	100.08	6,726.43	13.90	0.15	84.37	1.33	MWD	HALLIBURTON ENERGY SE...
4/22/2014	6,826.00	10.24	101.56	6,818.72	13.47	-3.19	101.92	1.55	MWD	HALLIBURTON ENERGY SE...
4/23/2014	6,920.00	9.44	102.74	6,911.33	12.70	-6.57	117.63	0.88	MWD	HALLIBURTON ENERGY SE...
4/23/2014	7,015.00	10.31	102.13	7,004.92	11.84	-10.07	133.54	0.92	MWD	HALLIBURTON ENERGY SE...
4/23/2014	7,109.00	8.80	104.10	7,097.62	10.84	-13.59	148.73	1.64	MWD	HALLIBURTON ENERGY SE...
4/23/2014	7,204.00	8.91	106.64	7,191.48	9.31	-17.47	162.83	0.43	MWD	HALLIBURTON ENERGY SE...
4/23/2014	7,298.00	10.02	102.84	7,284.20	7.90	-21.37	177.78	1.35	MWD	HALLIBURTON ENERGY SE...
4/23/2014	7,393.00	9.11	106.25	7,377.88	6.50	-25.31	193.06	1.13	MWD	HALLIBURTON ENERGY SE...
4/23/2014	7,487.00	10.54	106.55	7,470.50	4.54	-29.84	208.44	1.52	MWD	HALLIBURTON ENERGY SE...
4/23/2014	7,582.00	9.77	109.64	7,564.01	2.02	-35.03	224.37	0.99	MWD	HALLIBURTON ENERGY SE...
4/23/2014	7,676.00	11.04	103.70	7,656.47	-0.08	-39.84	240.62	1.77	MWD	HALLIBURTON ENERGY SE...
4/23/2014	7,770.00	10.18	106.57	7,748.86	-1.79	-44.34	257.33	1.07	MWD	HALLIBURTON ENERGY SE...
4/23/2014	7,865.00	9.28	99.52	7,842.50	-2.86	-48.00	272.93	1.57	MWD	HALLIBURTON ENERGY SE...
4/23/2014	7,960.00	8.84	98.92	7,936.31	-2.82	-50.40	287.70	0.47	MWD	HALLIBURTON ENERGY SE...
4/23/2014	8,054.00	9.04	101.01	8,029.17	-2.97	-52.93	302.08	0.41	MWD	HALLIBURTON ENERGY SE...
4/23/2014	8,148.00	7.76	101.12	8,122.16	-3.37	-55.56	315.56	1.36	MWD	HALLIBURTON ENERGY SE...
4/23/2014	8,243.00	8.28	97.50	8,216.23	-3.34	-57.69	328.63	0.76	MWD	HALLIBURTON ENERGY SE...
4/24/2014	8,337.00	8.18	87.38	8,309.27	-1.73	-58.27	342.02	1.54	MWD	HALLIBURTON ENERGY SE...
4/24/2014	8,431.00	8.31	81.42	8,402.30	1.76	-56.95	355.42	0.92	MWD	HALLIBURTON ENERGY SE...
4/24/2014	8,526.00	8.87	85.41	8,496.23	5.64	-55.34	369.51	0.86	MWD	HALLIBURTON ENERGY SE...
4/24/2014	8,621.00	9.14	98.12	8,590.07	7.58	-55.82	384.28	2.11	MWD	HALLIBURTON ENERGY SE...
4/24/2014	8,715.00	9.03	103.90	8,682.89	7.16	-58.65	398.83	0.98	MWD	HALLIBURTON ENERGY SE...
4/24/2014	8,810.00	8.69	104.95	8,776.76	5.88	-62.29	413.01	0.40	MWD	HALLIBURTON ENERGY SE...
4/24/2014	8,904.00	8.98	102.51	8,869.65	4.79	-65.71	427.03	0.50	MWD	HALLIBURTON ENERGY SE...
4/25/2014	8,999.00	7.06	100.74	8,963.71	4.25	-68.41	440.00	2.04	MWD	HALLIBURTON ENERGY SE...
4/25/2014	9,093.00	6.55	106.55	9,057.05	3.44	-71.01	450.82	0.91	MWD	HALLIBURTON ENERGY SE...
4/25/2014	9,188.00	6.90	105.88	9,151.40	2.12	-74.11	461.50	0.38	MWD	HALLIBURTON ENERGY SE...
4/25/2014	9,283.00	7.92	111.41	9,245.60	0.11	-78.07	473.08	1.31	MWD	HALLIBURTON ENERGY SE...
4/25/2014	9,377.00	8.74	112.51	9,338.61	-2.86	-83.16	485.71	0.89	MWD	HALLIBURTON ENERGY SE...
4/25/2014	9,472.00	6.75	109.56	9,432.74	-5.49	-87.80	497.64	2.14	MWD	HALLIBURTON ENERGY SE...
4/25/2014	9,566.00	4.79	105.97	9,526.26	-6.92	-90.73	506.62	2.12	MWD	HALLIBURTON ENERGY SE...
4/25/2014	9,660.00	3.62	114.48	9,620.01	-8.14	-93.04	513.09	1.41	MWD	HALLIBURTON ENERGY SE...
4/26/2014	9,755.00	2.23	107.84	9,714.88	-9.19	-94.84	517.58	1.50	MWD	HALLIBURTON ENERGY SE...



COTTON DRAW UNIT 202H

WEST UNRESTRICTED

Directional Survey

District DELAWARE BASIN	County EDDY	Field Name PADUCA	Project Group DELAWARE BASIN REG	State/Province NM			
Surface Legal Location SEC2 T25S R31E	API/UWI 3001541437	Latitude (°) 32° 9' 9.897" N	Longitude (°) 103° 45' 12.364" W	Ground Elev... 3,421.20	KB - GL (ft) 25.00	Orig KB Elev (ft) 3,446.20	Tubing Head Elevation (ft)

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
4/26/2014	9,810.00	2.35	93.29	9,769.84	-9.23	-95.24	519.73	1.08	MWD	HALLIBURTON ENERGY SE...
4/26/2014	9,850.00	2.50	92.77	9,809.80	-9.04	-95.33	521.42	0.38	MWD	HALLIBURTON ENERGY SE...
4/27/2014	9,881.00	3.67	50.01	9,840.76	-8.21	-94.72	522.85	8.06	MWD	HALLIBURTON ENERGY SE...
4/27/2014	9,913.00	5.28	36.99	9,872.66	-6.13	-92.89	524.52	5.92	MWD	HALLIBURTON ENERGY SE...
4/27/2014	9,944.00	7.93	28.53	9,903.45	-2.84	-89.87	526.40	9.08	MWD	HALLIBURTON ENERGY SE...
4/27/2014	9,976.00	12.05	20.84	9,934.96	2.52	-84.81	528.65	13.51	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,008.00	16.41	16.53	9,965.97	10.28	-77.35	531.12	14.01	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,039.00	20.94	14.80	9,995.33	20.15	-67.79	533.79	14.72	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,071.00	25.61	13.95	10,024.72	32.74	-55.54	536.92	14.63	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,102.00	29.29	14.32	10,052.23	46.98	-41.69	540.41	11.88	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,134.00	32.74	14.65	10,079.65	63.40	-25.72	544.53	10.79	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,165.00	36.04	14.47	10,105.23	80.83	-8.78	548.93	10.65	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,197.00	38.63	14.09	10,130.67	100.17	10.03	553.72	8.13	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,228.00	41.35	14.33	10,154.42	120.02	29.34	558.61	8.79	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,260.00	44.21	14.49	10,177.90	141.67	50.39	564.02	8.94	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,292.00	47.06	13.96	10,200.27	164.46	72.56	569.64	8.98	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,323.00	49.77	14.00	10,220.85	187.57	95.06	575.24	8.74	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,356.00	52.57	14.41	10,241.54	213.18	119.98	581.55	8.54	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,387.00	55.85	13.80	10,259.66	238.24	144.36	587.67	10.70	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,419.00	59.24	12.74	10,276.83	265.18	170.64	593.86	10.96	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,450.00	62.42	11.49	10,291.94	292.21	197.10	599.54	10.85	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,482.00	65.75	10.37	10,305.93	320.98	225.36	604.99	10.87	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,513.00	69.22	9.07	10,317.80	349.61	253.58	609.82	11.84	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,545.00	72.56	8.13	10,328.27	379.84	283.47	614.34	10.80	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,577.00	75.63	6.41	10,337.04	410.59	313.99	618.23	10.90	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,608.00	78.95	5.71	10,343.86	440.77	344.06	621.42	10.93	MWD	HALLIBURTON ENERGY SE...
4/27/2014	10,640.00	81.59	5.42	10,349.27	472.24	375.45	624.48	8.30	MWD	HALLIBURTON ENERGY SE...
4/28/2014	10,671.00	84.51	4.88	10,353.02	502.92	406.09	627.24	9.58	MWD	HALLIBURTON ENERGY SE...
4/29/2014	10,703.00	86.33	3.90	10,355.57	534.70	437.90	629.68	6.45	MWD	HALLIBURTON ENERGY SE...
4/29/2014	10,798.00	89.01	1.85	10,359.43	628.99	532.68	634.44	3.55	MWD	HALLIBURTON ENERGY SE...
4/29/2014	10,892.00	90.74	2.07	10,359.64	722.20	626.63	637.66	1.86	MWD	HALLIBURTON ENERGY SE...
4/29/2014	10,987.00	90.03	2.70	10,359.00	816.49	721.54	641.61	1.00	MWD	HALLIBURTON ENERGY SE...
4/29/2014	11,081.00	91.63	2.49	10,357.64	909.82	815.43	645.86	1.72	MWD	HALLIBURTON ENERGY SE...
4/29/2014	11,176.00	93.46	2.93	10,353.42	1,004.08	910.23	650.35	1.98	MWD	HALLIBURTON ENERGY SE...
4/29/2014	11,270.00	92.47	2.58	10,348.56	1,097.32	1,003.99	654.86	1.12	MWD	HALLIBURTON ENERGY SE...
4/29/2014	11,365.00	91.48	2.07	10,345.29	1,191.55	1,098.85	658.71	1.17	MWD	HALLIBURTON ENERGY SE...
4/29/2014	11,460.00	90.49	1.85	10,343.65	1,285.74	1,193.78	661.96	1.07	MWD	HALLIBURTON ENERGY SE...
4/29/2014	11,554.00	91.88	2.12	10,341.71	1,378.93	1,287.71	665.22	1.51	MWD	HALLIBURTON ENERGY SE...
4/29/2014	11,649.00	90.96	2.04	10,339.35	1,473.13	1,382.61	668.67	0.97	MWD	HALLIBURTON ENERGY SE...
4/29/2014	11,743.00	89.78	1.68	10,338.75	1,566.32	1,476.56	671.72	1.31	MWD	HALLIBURTON ENERGY SE...
4/30/2014	11,837.00	91.91	1.69	10,337.36	1,659.45	1,570.50	674.48	2.27	MWD	HALLIBURTON ENERGY SE...
4/30/2014	11,932.00	91.42	2.25	10,334.60	1,753.62	1,665.41	677.74	0.78	MWD	HALLIBURTON ENERGY SE...
4/30/2014	12,027.00	89.85	2.18	10,333.55	1,847.87	1,760.33	681.42	1.65	MWD	HALLIBURTON ENERGY SE...
4/30/2014	12,121.00	91.76	2.34	10,332.23	1,941.13	1,854.24	685.12	2.04	MWD	HALLIBURTON ENERGY SE...
4/30/2014	12,216.00	90.22	1.00	10,330.59	2,035.25	1,949.18	687.89	2.15	MWD	HALLIBURTON ENERGY SE...
4/30/2014	12,311.00	88.95	359.92	10,331.27	2,129.10	2,044.17	688.65	1.75	MWD	HALLIBURTON ENERGY SE...
4/30/2014	12,405.00	90.68	0.03	10,331.58	2,221.83	2,138.17	688.61	1.84	MWD	HALLIBURTON ENERGY SE...
4/30/2014	12,500.00	89.57	359.77	10,331.37	2,315.53	2,233.16	688.45	1.20	MWD	HALLIBURTON ENERGY SE...
5/1/2014	12,595.00	91.54	359.80	10,330.45	2,409.19	2,328.16	688.09	2.07	MWD	HALLIBURTON ENERGY SE...
5/1/2014	12,689.00	91.20	0.58	10,328.20	2,501.95	2,422.13	688.40	0.90	MWD	HALLIBURTON ENERGY SE...
5/1/2014	12,784.00	90.31	2.20	10,326.95	2,596.02	2,517.09	690.71	1.95	MWD	HALLIBURTON ENERGY SE...
5/1/2014	12,879.00	90.15	2.26	10,326.57	2,690.28	2,612.01	694.40	0.18	MWD	HALLIBURTON ENERGY SE...
5/1/2014	12,973.00	88.86	2.49	10,327.38	2,783.57	2,705.93	698.30	1.39	MWD	HALLIBURTON ENERGY SE...
5/1/2014	13,068.00	90.59	2.58	10,327.84	2,877.89	2,800.83	702.50	1.82	MWD	HALLIBURTON ENERGY SE...
5/1/2014	13,163.00	89.11	2.85	10,328.09	2,972.24	2,895.72	707.00	1.58	MWD	HALLIBURTON ENERGY SE...



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Directional Survey

District DELAWARE BASIN	County EDDY	Field Name PADUCA	Project Group DELAWARE BASIN REG	State/Province NM			
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Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (*/100ft)	Survey Tool	Survey Company
5/1/2014	13,257.00	90.46	2.64	10,328.44	3,065.61	2,989.61	711.50	1.45	MWD	HALLIBURTON ENERGY SE...
5/1/2014	13,352.00	89.54	2.21	10,328.44	3,159.91	3,084.52	715.52	1.07	MWD	HALLIBURTON ENERGY SE...
5/1/2014	13,447.00	90.86	2.58	10,328.11	3,254.20	3,179.44	719.49	1.44	MWD	HALLIBURTON ENERGY SE...
5/3/2014	13,541.00	90.52	2.55	10,326.98	3,347.53	3,273.34	723.70	0.36	MWD	HALLIBURTON ENERGY SE...
5/3/2014	13,636.00	88.74	1.90	10,327.59	3,441.78	3,368.26	727.38	1.99	MWD	HALLIBURTON ENERGY SE...
5/3/2014	13,730.00	90.18	2.09	10,328.47	3,534.99	3,462.19	730.66	1.55	MWD	HALLIBURTON ENERGY SE...
5/3/2014	13,825.00	92.90	2.40	10,325.92	3,629.21	3,557.08	734.38	2.88	MWD	HALLIBURTON ENERGY SE...
5/3/2014	13,920.00	91.60	2.90	10,322.19	3,723.48	3,651.90	738.76	1.47	MWD	HALLIBURTON ENERGY SE...
5/3/2014	14,014.00	90.58	3.65	10,320.40	3,816.93	3,745.73	744.13	1.35	MWD	HALLIBURTON ENERGY SE...
5/3/2014	14,109.00	90.83	3.38	10,319.24	3,911.43	3,840.54	749.96	0.39	MWD	HALLIBURTON ENERGY SE...
5/3/2014	14,204.00	92.13	1.62	10,316.78	4,005.70	3,935.41	754.10	2.30	MWD	HALLIBURTON ENERGY SE...
5/4/2014	14,299.00	91.97	1.55	10,313.38	4,099.77	4,030.32	756.73	0.18	MWD	HALLIBURTON ENERGY SE...
5/4/2014	14,393.00	91.94	2.23	10,310.18	4,192.91	4,124.21	759.82	0.72	MWD	HALLIBURTON ENERGY SE...
5/4/2014	14,488.00	91.08	2.29	10,307.67	4,287.14	4,219.10	763.57	0.91	MWD	HALLIBURTON ENERGY SE...
5/4/2014	14,583.00	90.03	2.49	10,306.75	4,381.43	4,314.02	767.53	1.13	MWD	HALLIBURTON ENERGY SE...
5/4/2014	14,677.00	91.97	2.24	10,305.11	4,474.71	4,407.92	771.41	2.08	MWD	HALLIBURTON ENERGY SE...
5/4/2014	14,772.00	90.55	2.35	10,303.02	4,568.95	4,502.81	775.21	1.50	MWD	HALLIBURTON ENERGY SE...
5/4/2014	14,867.00	92.62	2.47	10,300.40	4,663.21	4,597.69	779.21	2.18	MWD	HALLIBURTON ENERGY SE...
5/4/2014	14,962.00	94.93	2.22	10,294.14	4,757.28	4,692.40	783.08	2.45	MWD	HALLIBURTON ENERGY SE...
5/4/2014	15,023.00	94.93	2.22	10,288.90	4,817.58	4,753.13	785.44	0.00	BIT	HALLIBURTON ENERGY SE...